

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-016495**Date Inspected:** 17-Aug-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Qiu Wen**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower & OBG Components**Summary of Items Observed:**

On this date Caltrans Office of Structural Materials Quality Assurance Inspector, Sandeep Kumar (QA) was present during the times noted above for observations relative to the work being performed.

BAY#10

This QA Inspector observed the following work in progress

Shielded Metal Arc Welding (SMAW):

Weld joint # 5A located on South tower Lift-5 Grillage Assembly SSD1 – TL5 – 1B/F. Welder is identified as 040582. ZPMC Quality Control (QC) Inspector is identified as Li Peng Fei. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3213 – TC – U5b.

Heat Straightening:

Heat Straightening being performed on Tower Lift-5 splice plate stiffener identified as WSD1-SPSA5-12 by oxy-acetylene flame method to remove the distortion that occurred after welding. ZPMC Quality Control (QC) Inspector is identified as Liu Dao Feng present at the location. This activity appeared to comply with the Heat Straightening Report # HSR (T) – 232.

ORTHOTROPIC BOX GIRDER (OBG) AT BAY#10

This QA Inspector observed the following work in progress

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Fluxcored Arc Welding (FCAW):

Weld joint # 05 located on Bike Path panel Assembly BK004A7- 027. Welder is identified as 053116. ZPMC Quality Control (QC) Inspector is identified as Yang Ming Ming. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2133.

Weld joint # 186 located on Bike Path panel Assembly BK004A7- 026. Welder is identified as 057180. ZPMC Quality Control (QC) Inspector is identified as Yang Ming Ming. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2133.

BAY#11

This QA Inspector observed the following work in progress

Shielded Metal Arc Welding (SMAW):

Weld joint # 20 located on East tower Lift-5 Grillage Assembly ESD1 – TL5 – 2B/F. Welder is identified as 040723. ZPMC Quality Control (QC) Inspector is identified as Ma Qian Li. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3213 – TC –U4c.

Weld joint # 17 located on West tower Lift-5 Grillage Assembly WSD1 – TL5 – 4B/F. Welder is identified as 070006. ZPMC Quality Control (QC) Inspector is identified as Xu Jie. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3213 – TC –U4c.

ORTHOTROPIC BOX GIRDER (OBG) AT BAY#11

This QA Inspector observed the following work in progress

Fluxcored Arc Welding (FCAW):

Weld joint # 055 located on Edge Plate EP3030B- 001. Welder is identified as 205649. ZPMC Quality Control (QC) Inspector is identified as Yu Dong Ping. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2231 – B – U2 – F.

Weld joint # 056 located on Edge Plate EP3030C- 001. Welder is identified as 205649. ZPMC Quality Control (QC) Inspector is identified as Yu Dong Ping. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2231 – B – U2 – F.

BLAST SHOP

EXTERNAL PRE-BLAST INSPECTION OF NORTH TOWER LIFT-2 FROM 83 M TO 77 M ELEVATION

During the External pre-blast visual inspection on South tower Lift-2, these Quality Assurance Inspector's (QA) discovered the defects required welding and Magnetic particle testing on weld and base material at the following locations:

- 1) Skin 'B' – Arc Gouge –2660 mm from top and 150 mm from A/B corner.
- 2) Skin 'B' – Arc Gouge –77 meter elevation, 310 mm from B/C corner.
- 3) Skin 'C' – Arc Strike – 2.5 meter from top and 1010 mm from B/C corner.
- 4) Skin 'C' – Arc Strike – 2.5 meter from top and 1020 mm from B/C corner.
- 5) Skin 'E' – Arc Gouge – 1250 mm from top and 1350 mm from D/E corner.

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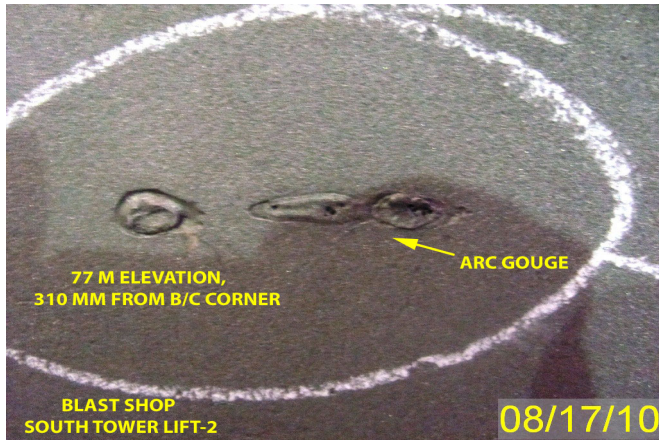
## WELDING INSPECTION REPORT

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For further information, please see the attached pictures below.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



### Summary of Conversations:

No Relevant Conversations.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Michael Ng - 15921845703, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Kumar,Sandeep	Quality Assurance Inspector
<b>Reviewed By:</b>	Clifford,William	QA Reviewer

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